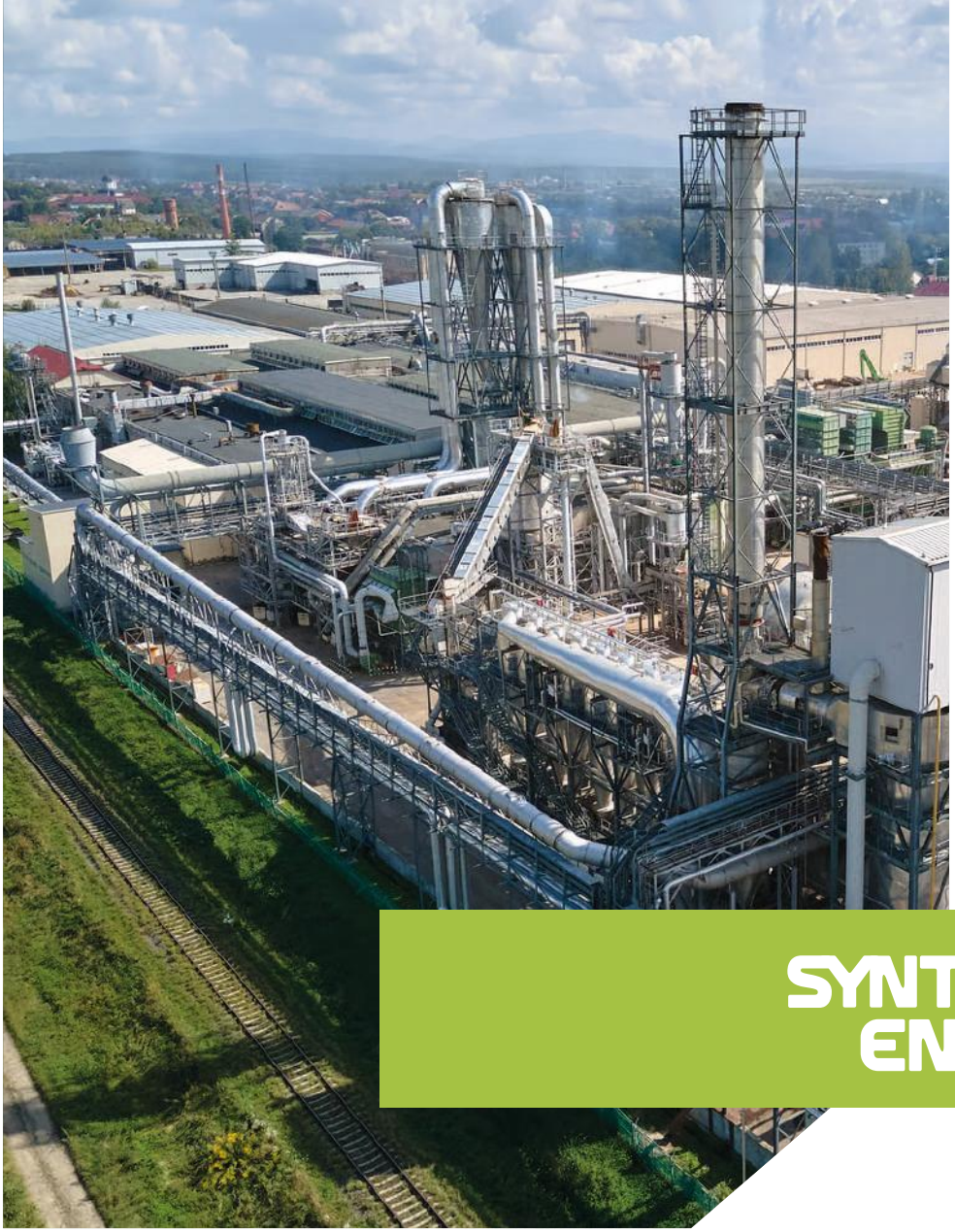

SYNTERRA ENERGY

Powering the Future.
Transforming Waste into Energy.

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The Global **Challenge**

- The world produces 2.1 billion tons of waste annually, and less than 20% is recycled.
- Energy demand continues to grow global electricity needs are expected to double by 2050.
- Current renewables (solar, wind) are intermittent and cannot provide reliable baseload power.
- Waste management and energy scarcity are converging global crises.

SYNTERRA ENERGY
provides a unified solution: converting waste into renewable, storable, dispatchable energy.

Introducing SYNTERRA ENERGY

WHO WE ARE

Synterra Energy is a next-generation clean energy company delivering modular, zero-emission power solutions through advanced gasification and graphene solid state energy storage.

OUR MISSION

To transform global waste streams into renewable, storable, and scalable power redefining the future of energy.

OUR MODEL

A circular energy ecosystem where waste becomes fuel, fuel becomes power, and elevates the quality of life across the planet.

Our Groundbreaking **Technology**

Modular Gasification Plant System (MGP)

- Proprietary closed loop carbonization and gasification process.
- Converts solid waste into syngas, fuel oil, carbon black, and electricity.
- Zero emissions through ionized air filtration and carbon capture.c

Graphene Solid-State Batteries

- Non Lithium, Scalable Storage with no fire risk.
- Long Duration Power 20 year life, 500,000+ cycles, 99% efficiency.
- Scalable & Adaptive modular design from MWh to GWh systems.
- Sustainably Built 100% recyclable, lowest lifetime storage cost.

The SYNTERRA **Process**

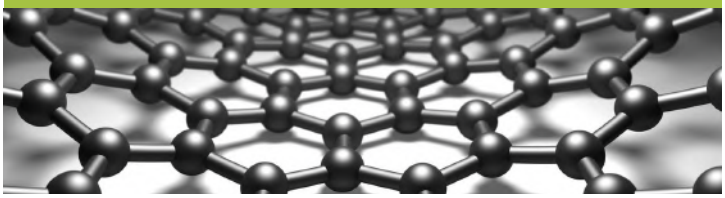
Feedstock Intake	Gasification	Energy Conversion	Battery Storage	Power Delivery
Tires, Tanker Sludge, MSW, Plastics, Biomass, Medical Waste	Waste converted to syngas using proprietary zero emission process	Syngas condensed into clean fuels and used to generate electricity	Electricity stored in graphene solid state batteries	Clean, continuous, dispatchable energy delivered to the grid or off grid users

OUTPUTS:

Fuel oil | Electricity | Carbon Black | Metals | Carbon Credits

Key **Advantages**

FEATURE	BENEFIT
Zero Emissions	Closed loop carbon capture system eliminates pollutants.
Baseload Renewable Power	24/7 energy production unlike solar or wind.
Multiple Revenue Streams	Energy, fuels, carbon credits, and material recovery.
Scalable & Modular	Compact footprint, expandable processing lines & BESS Power
Circular Economy Integration	Turns waste into power, power into security and enablement.
Advanced Energy Storage	Graphene BESS ensures reliability and resilience.



Market **Applications**

Ports & Shipping	Convert tanker sludge and waste oil into energy.	Municipal Waste	Sustainable waste management for cities.
Industrial Zones	Energy independence and waste remediation.	Off-Grid / Islands	Build local, renewable power ecosystems.
Mining & Agriculture	On site power and waste to energy integration.		

Powering the Next Generation **of Sustainable Ports**

Turning Waste Into Energy, Fuel & Value

Ports generate significant volumes of tanker sludge, plastics, and industrial waste. Synterra converts these materials into clean power, usable fuels, and valuable byproducts through a proprietary closed-loop gasification system—creating a fully circular, on-site solution.

WHY PORTS

- Built-In Feedstock
- Continuous, high-volume waste streams ensure reliable system operation.
- On-Site Energy
- Produce electricity and heat to reduce costs and grid dependence.
- Circular Fuel Production
- Generate fuels that can be reused within port operations and vessels.
- Zero-Emission Solution
- Closed-loop process eliminates harmful outputs while recovering materials.
- Multiple Revenue Streams
- Power, fuel, recovered materials, and energy credits.
- Modular & Scalable
- Deploy quickly and expand as demand grows.

THE RESULT

- Lower disposal costs
- New energy and fuel supply
- Diversified revenue streams
- ESG and decarbonization compliance

From Waste Hub **to Energy Hub**

Synterra enables ports to become self-sustaining, revenue-generating energy ecosystems.

Project **Economics**

CAPEX

Base 14 Ton/Hour Plant Cost Starting at $23.5M* USD
Full Deployment in 12 Months
(*includes 10 MW NexEnergy BESS)
Achieves Generation of up to 10-15 MWH Firm Power depending on Feedstock

SCALABLE

Expandable up to 56 tons/hour within one year.

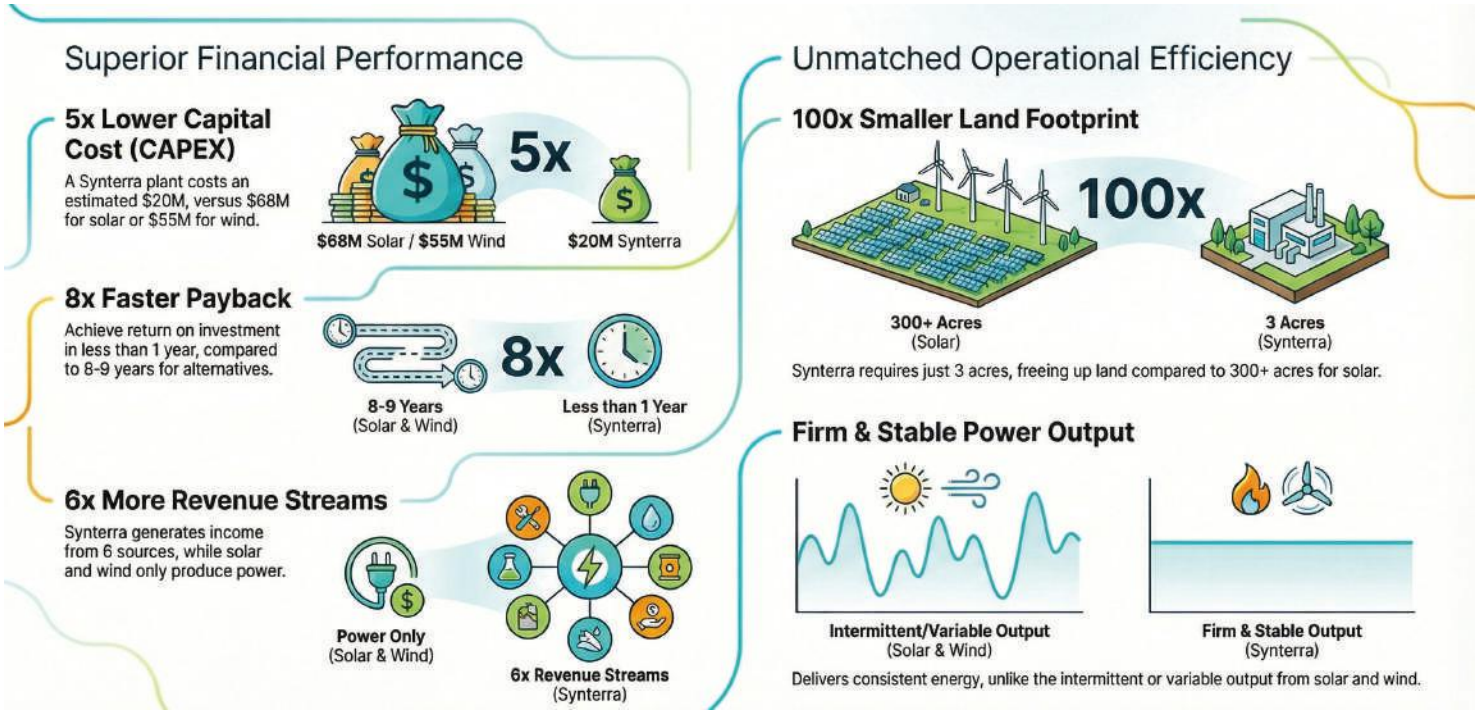
REVENUE SOURCES

- Power Purchase Agreements (PPAs)
- Carbon credits
- Sale of recovered fuels and byproducts
- Battery system leasing or ownership models

ROI DRIVERS:

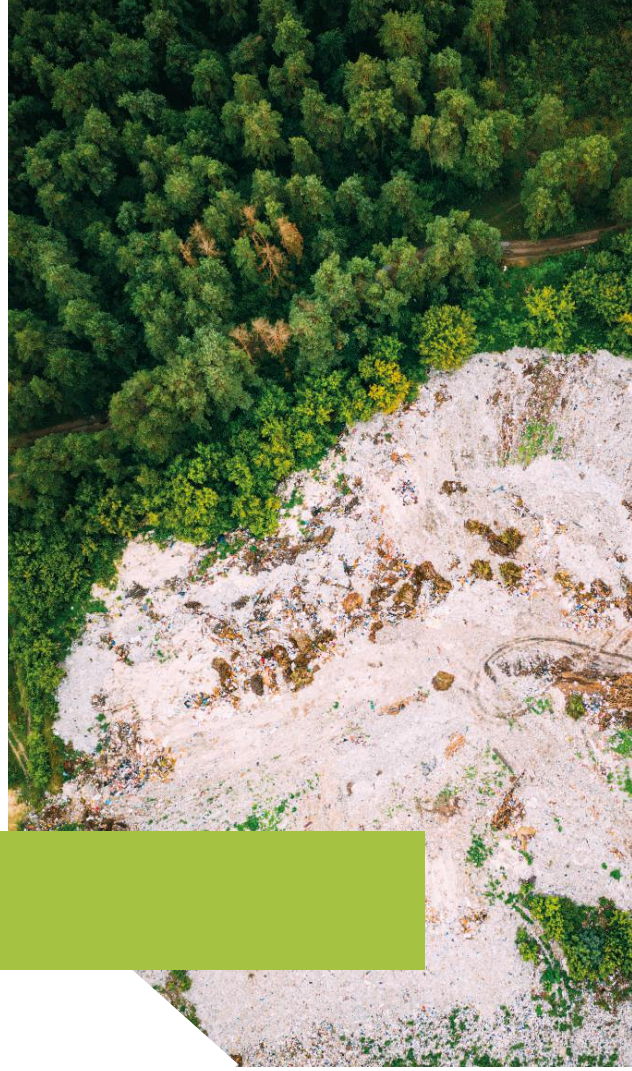
- Multi revenue ecosystem
- Low operating costs due to energy self sufficiency
- Strong ESG and carbon credit positioning

SYNTERRA Vs Solar & Wind



Environmental **Impact**

Zero Emission Operation through closed loop ionized gas cleanup.
Carbon Capture: CO_2 converted into stable solids or reused in processes.
Waste Reduction: Eliminates landfilling and incineration.
Sustainability: Enables circular economy for energy, waste, and materials.
Carbon Credits: Each facility generates verified credits for investors and operators.

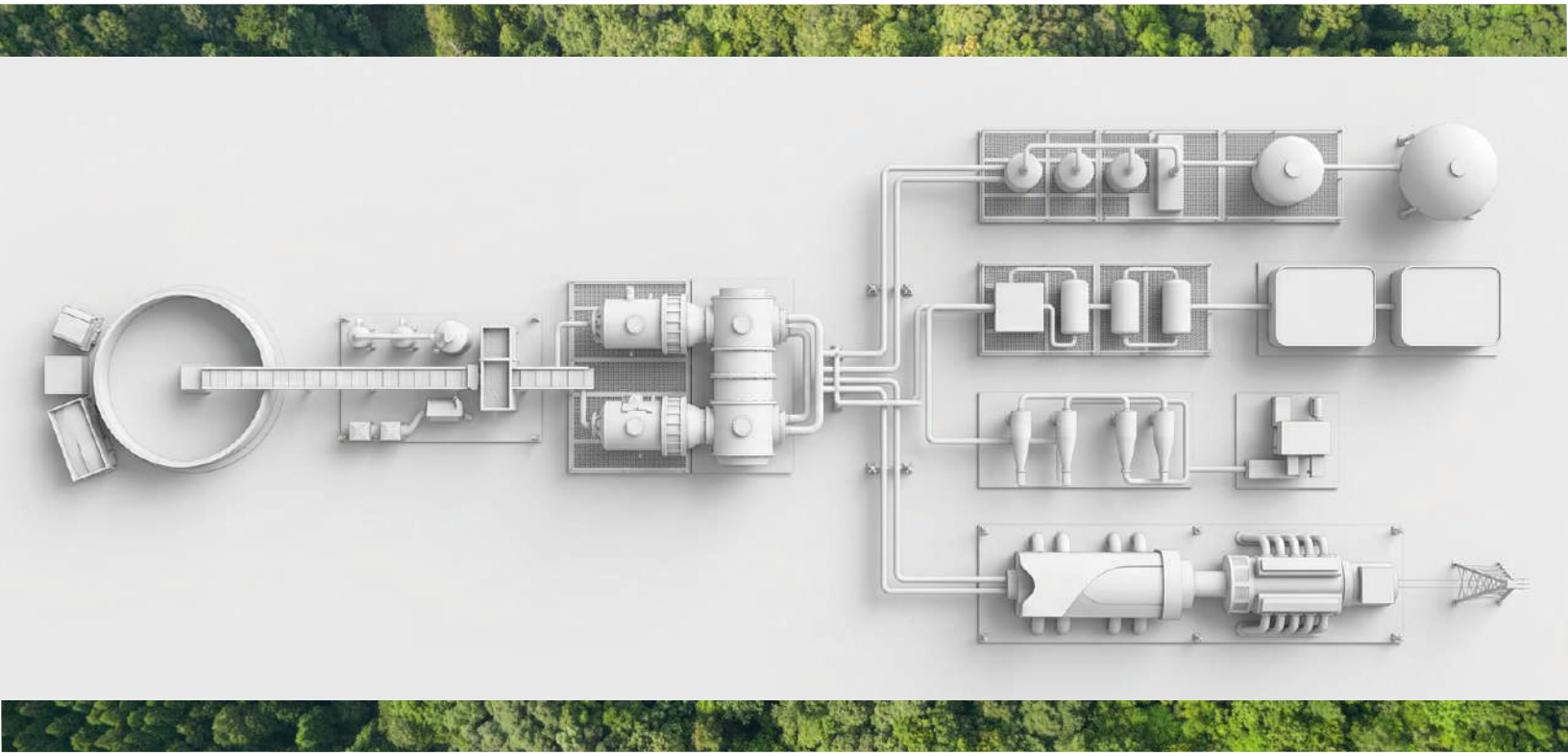


Competitive **Advantage**

FEATURE	TRADITIONAL WTE / INCINERATION
Zero Emissions	High CO_2, SO_2, and NO_x output
Multiple outputs (fuel, power, credits)	Single energy output
24/7 baseload renewable	Intermittent or combustion dependent
Modular, scalable footprint	Large, fixed installations
Integrated BESS	No energy storage or grid balancing

Business **Model**

Building scalable modular Recovery and Energy plants enabling regional deployment and long term energy infrastructure growth



DBOO Model
Design, Build, Own and Operate.

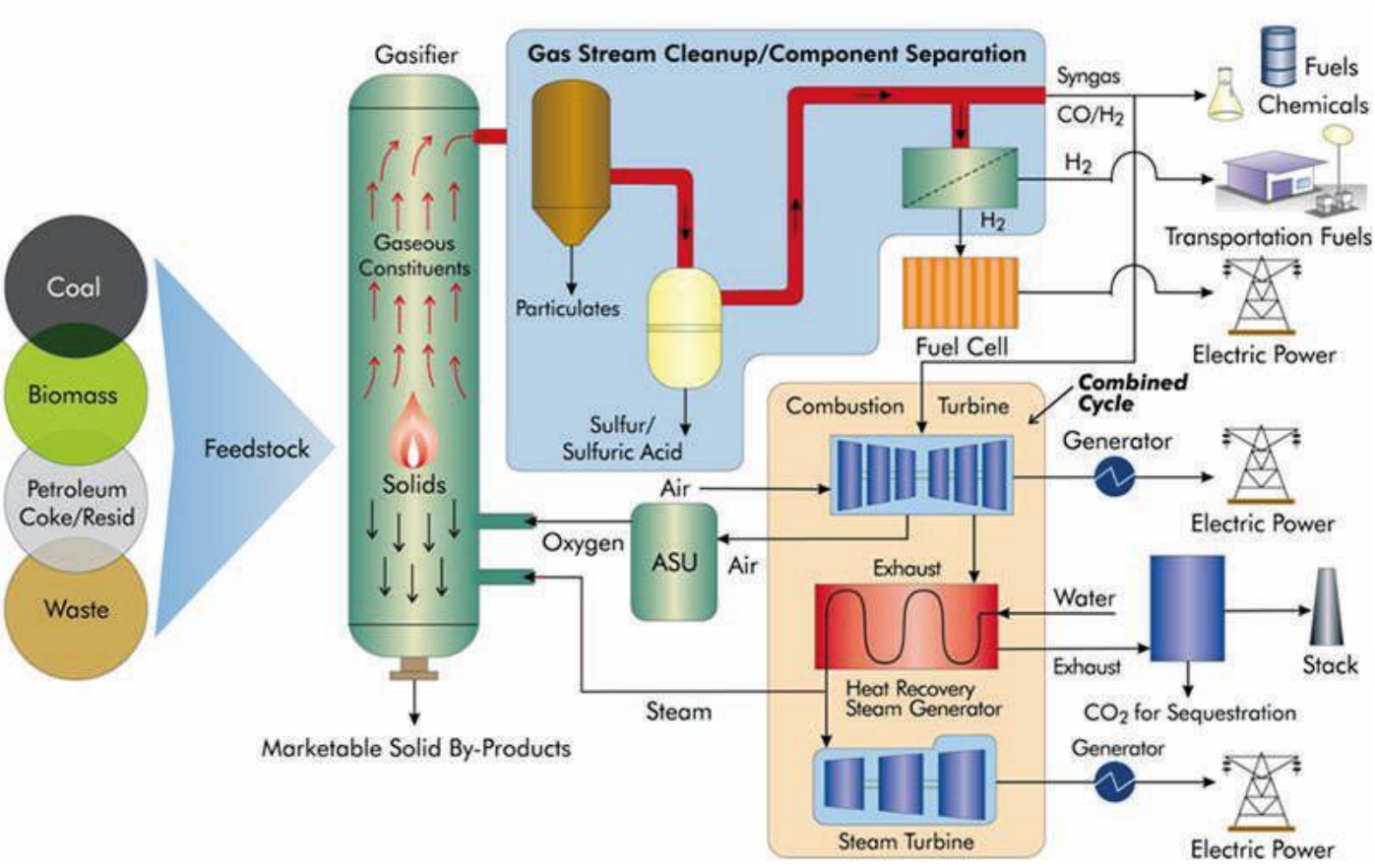
Revenue Streams
Energy sales, carbon credits and recovered materials.

Partnership Model
Joint ventures, licensing and EAAS and PPA agreements.

Financing Structure
Blended equity, debt, Bonds and ESG linked capital.

Turning Waste Into Energy. **Without Emissions.**

A fully closed-loop system that converts waste into power, fuels, and valuable materials cleanly, efficiently, and at scale.



Synterra's proprietary gasification platform utilizes a pressurized, closed-loop process to convert diverse feedstocks—including municipal waste, plastics, tires, and biomass into clean syngas, fuels, and electricity. Unlike traditional combustion systems, the process operates under controlled oxygen conditions to maximize energy recovery while eliminating emissions, enabling a fully circular system. Integrated gas cleanup, component separation, and combined-cycle power generation allow Synterra to capture multiple revenue streams, including fuel oil, electricity, carbon black, steel, and energy credits, while delivering a scalable and environmentally superior waste-to-energy solution.

Dedicated **Zones**

- Process yard (gasifiers, reactors, separation)
- Turbine & power generation yard
- Storage tanks & fuel handling
- Maintenance & logistics areas
- Office + parking infrastructure

Feedstock Intake & Processing | **Gasification Process Unit** | **Energy Generation & Turbine Yard** | **Byproduct Recovery & Storage**

Powering an energized cleaner world by turning waste into sustainable, storable energy.

SYNTERRA ENERGY

stands at the intersection of clean technology, affordable energy resilience and environmental restoration transforming the global energy landscape one ton of waste at a time.

SYNTERRA ENERGY

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